3.0

THEORY

Fig - 3.1
This photograph is from Phil D's photographic collection of derelict industrial buildings. All photos Available on www.Flickr.com

A REQUIRED CHANGE FOR A STATIC TYPOLOGY

BACKGROUND OF TYPOLOGY

"Most design decisions are still made from a snap shot in time"

(Jenkin & Worthington, 1996, p. 92).

The typology of industrial architecture dating back to 1750 with European Mill architecture has from its early beginnings been a typology of the pragmatic (Jones E. , 1985, p. 12). It merely intended to solve the problem at hand with minimal expense and thought to the humanisation of space. Therefore architects were never commissioned to design these places of production; it was left to engineers (Sen, 2004, p. 1).

Industrial architecture was not seen as a typology that contributed much to architectural history, but in 1909 Peter Behrens pulled the typology from obscurity and started to design monumental industrial buildings such as the AEG turbine factory in Moabit, Berlin. Other architects such as Walter Gropius also drew inspiration from industrial typology as it was the most honest of architectural styles and one of the few that inspired the modern movement. Free of ornament and solely based on programme and technology, it led the way in innovative building design and technological development (Jenkin & Worthington, 1996, p. 87).This monumental approach to the industrial typology resulted in singular static artefacts which were/are mono-functional and could not adapt to the changing nature of production.

In 1963, Walter Gropius saw the failings of the typology as a purely pragmatic solution and started working on an industrial architecture that humanized the work environment to free workers from the monotony of the manufacturing processes (Sen, 2004, p. 4). He added new programmes and spaces to industrial buildings such as aviaries, conservatories, information centres and leisure-time facilities. This initiated the start of the High Tech movement which readdressed the typology. This time, a modular approach was taken to the design of pragmatic space. The space had to be adaptable; instead of building single artifacts, rather whole collections of artefacts were constructed to forever change with its environment or occupant. The High Tech movement made no allowance for context in design. Architecture was not seen as a high brow art or philosophy but as a technique.

This separation from landscape, context and the urban framework has left the industrial typology deserted and regarded as wastelands or "terrain vague" as coined by landscape architect Ignasi Sola Morales. It failed once again due to this disjunction, even though the typology was made more flexible, it was removed from its context and therefore was never allowed to change.

Today there is another resurgence of interest in industrial typology, developed around the paradigm of sustainable development. Adaptive reuse forms the core of this approach and focuses on the reuse of existing building stock in urban areas in order not to waste the embodied energy within these structures. Many post - industrial cities have used their existing industrial building stock in recent years by conversion into cultural centres such as in Manchester, Glasgow, Barcelona and Baltimore, all based on the successful adaptive reuse principle. There seems to be hardly any other way to approaching development in the near future as greenfield sites become scarcer and brownfield sites more abundant.

Irene Curulli (2006, p. 33) sees a definite resemblance between agriculture and derelict industrial sites when she says:" *Industrial wastelands are temporary inactive lands, left bare for a period of time in order to recover natural fertility*" which also echoes what Ajanta Sen (2004, p. 8) says:

Figure - 3.2 (Right)- Photograph by Ester Havlova from her "Fragments" collection

3.1

" perhaps it is its fate that to stay alive, industrial architecture must metamorphose or recede every once in a while to make space for the new."

CONCLUSIONS:

The industrial typology needs to be reconnected to the productive urban network via a new public interface.

To avoid becoming defunct objects, industrial architecture needs to become flexible to context and not just programme.

The embodied energy of industrial architecture needs to be minimized through material selection and a new approach beyond the architecture of economy.

THE THIRD INDUSTRIAL REVOLUTION

The world is approaching the end of the oil era with peak oil rates within sight in the coming years (Rifkin, 2009, p. 4). Concurrently the levels of CO_2 emissions being deposited into our atmosphere due to the combustion of fossil fuels are also increasing at an alarming rate. At present, the global Green House Gas (GHG) concentration in the atmosphere is 430ppmv CO_2e, and is rising at more than 2ppmv per year. (Stern, 2010, p. 9) This is causing global temperatures to rise and will result in an ominous future for mankind and the natural eco systems if something is not done immediately.

"We require a new economic narrative that will push the discussion and the agenda around climate change and peak oil from fear to hope and from economic constraints to economic possibilities. That narrative is just now emerging as industries across Europe begin to lay the groundwork for a post-carbon Third Industrial Revolution"

(Rifkin, 2009, p. 1).

The Third Industrial Revolution (TIR) is upon us and is characterised by a change to a sustainable paradigm and requires a new architectural typology for a new industry to refrain from perpetuating the mistakes of the past and preserving the future. The Information Technology (IT) industry has revolutionised the global social context with the inventions of social utilities and the global growth of the Internet, industry requires the same revolutionary impetus to achieve a sustainable future (Rifkin, 2009, p. 2). Globally, the third industrial revolution is defined by emerging industries such as Bio Fabrication, Social Utilities, Nano Technology and science based industries. These industries define the new revolution for first world countries which currently have the infrastructure, funding and expertise to support it. In the global context South Africa is classed as a developing country and industry development is required to alleviate poverty and achieve growth. The new global industries namely Bio Fabrication, Nano Technology etc. will therefore not be seen in the near future of South African industry, but this does not mean South Africa cannot be part of the TIR.

Developing countries such as South Africa have to form the benchmark of sustainable industrial development for the rest of the world (Stern, 2010, p. 15). Industry will continue to expand in developing countries and their part in the TIR will be to develop within a sustainable framework of emissions targets and regenerative urban principles. If development is to happen within a sustainable framework, the foundations for emerging industries of the TIR will be laid and their realisation will become more feasible in the near future (Rifkin, 2009, p. 12).

"The environment is not a competing interest: it is the playing field on which all other interests intersect."

(Cortese, 2001, p. 4)

The architecture of the TIR will play a pivotal role in its success. Currently, the construction industry contributes 50% of all carbon emissions and 70% if transport associated with construction is included (Jones P. , 2009, p. 1). Sustainability in architecture is the only way to make the TIR a reality and should be incorporated into the architecture of industry as the industrial typology of yesteryear has left us with industrial wastelands. Since the industrial revolution humanity has based the built environment on systems, patterns and technologies in opposition to the natural world. Architecture and explicitly industrial architecture is the worst contributor to this condition. The approach to the design of areas of production depicts a severance between nature and the built environment which so rapidly consumes it (Littman, 2009, p. 15).

"The virtue is in producing, without possessing nor dominating"
Tao Te King

Figure - 3.3 - The Third Industrial Revolution

Architecture engages its environment where it is placed and the vast divide between the natural landscape and industrial typology needs to be addressed. A paradigm shift is required, a shift beyond sustainability, which does not just control the environmental impact but also has a positive impact on its immediate surroundings. Buildings should act as positive power plants that can regenerate and enrich landscapes. Industrial architecture has to move rapidly because our and its survival lies in movement as Ingnasi Solas Moralles says. The typology needs to shift from:

Industrial architecture to Sustainable architecture / Regenerative Architecture

And from

Architecture of Economy to architecture of Social Responsibility.

CONCLUSIONS

South Africa is not yet ready for the new global industries and focus should be put on readdressing the existing industry to provide a benchmark for sustainable industrial development.

Readdressing the old industry will provide the infrastructure for the TIR in the future.

The red meat industry is one of the oldest and most environmentally taxing industries in the world and can be readdressed to aid the development of the TIR.

A shift beyond sustainability is required as sustainability only sustains an already damaged environment. A regenerative relationship between the built and natural environment is required.

"The great pivotal economic changes in world history have occurred when new energy regimes converge with new communication regimes. When that convergence happens, society is restructured in wholly new ways."

(Rifkin, 2009, p2-3)

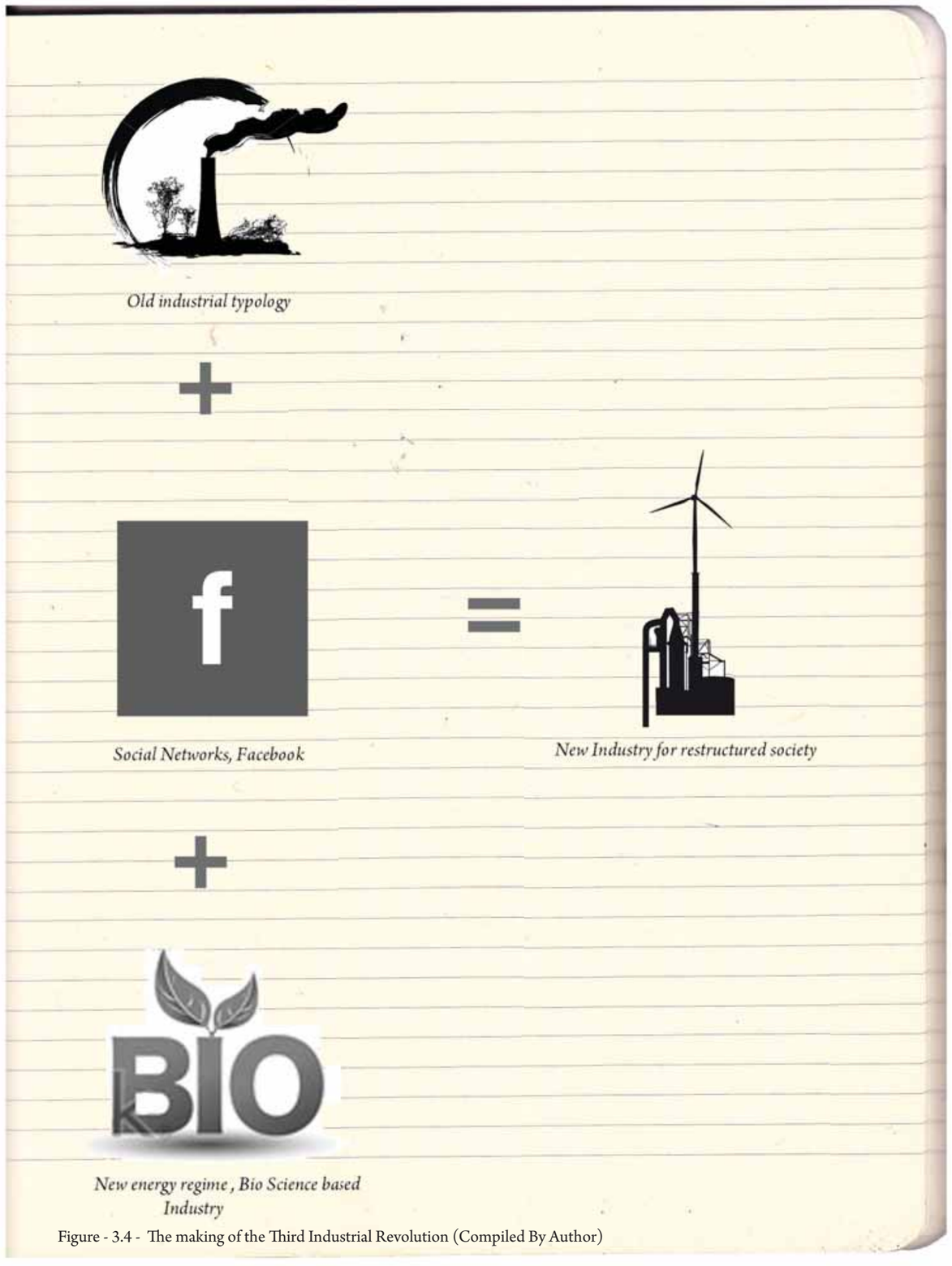


Figure - 3.4 - The making of the Third Industrial Revolution (Compiled By Author)

HERITAGE: RECYCLING HISTORY & MEMORY

"Places of cultural significance enrich people's lives, often providing a deep and inspirational sense of connection to community and landscape, to the past and to lived experiences. They are historical records, that are important as tangible expressions of identity and experience. Places of cultural significance reflect the diversity of our communities, telling us about who we are and the past that has formed us and the landscape. They are irreplaceable and precious. These places of cultural significance must be conserved for present and future generations. The Burra Charter advocates a cautious approach to change: do as much as necessary to care for the place and to make it useable, but otherwise change it as little as possible so that its cultural significance is retained."

Burra Charter (1999, p.1)

When dealing with deserted industrial sites, the general trend has been the "face-lift" (Curulli, 2006, p.30) approach where the heritage of the site is wiped clean, the characteristics of the site itself is denied and the differences are wiped out. The Burra charter was created in 1979 to aid the preservation and development of such sites and to prevent important heritage to go missing and become forgotten.

"As human activities have spread over territories of unusual dimension, huge industrial zones, former military installations, and outdated infrastructure—the sites of nineteenth- and twentieth-century modernity are suddenly empty."

Bernardo Secchi (2007, p.6)

Abandoned industrial sites in the urban landscape are loaded with memory as they bore witness to human and technological progression. They are rich empty spaces which demand to be read, translated and responded to as they embody the inescapable passage of time. Within these "rich lacunae" (Curulli, 2006, p.32) lie the possibility for the stimulation of perception towards stigmatised post industrial spaces and to inspire memory.

"Interpreting industrial wastelands is a work against amnesia"

Irene Curulli (2006, p.32)

The regeneration of derelict industrial spaces is rapidly gaining importance as brownfield sites are becoming more abundant. Regenerating these spaces requires the ground to be seen as a written page as Irene Curulli suggests. As these spaces carry inscriptions of the past and support the city's identity.

Irene Curulli, lecturer at Eindhoven Technical University and Owner of architecture and landscape firm, Terrafirma, specifically deals with the regeneration of old industrial sites and has written numerous papers on the subject. In her paper "*Reuse or Abuse? Ethics in Requalification Design (2007)",* published in *Places: The Future Metropolitan Landscape Volume 19,* she outlines a series of design approaches to address abandoned industrial sites. She refers to the design process as *Requalification Design* which consist of four steps:

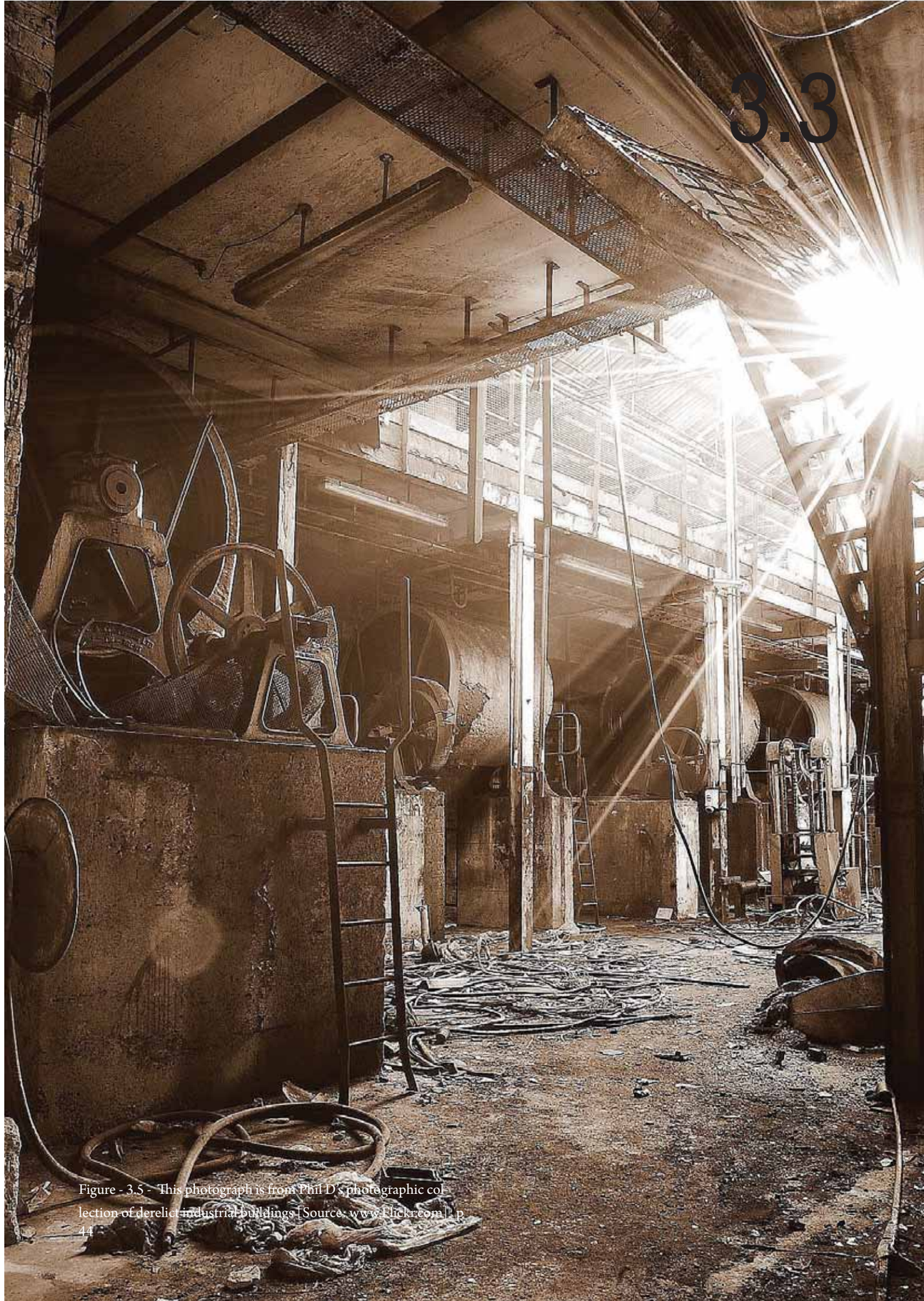
1. Product or Potential - ensure continuation and evolution of site by reading its potential and not focussing on a product.

2. Effective Divestment - selective treatment of the past to allow introduction of the new. This aligns with the Burra charter's creed to do as much as is necessary and as little as possible .

3. Appropriateness of new programmes - the selected programme must not devalue the potential of the heritage on site.

4. Pride of rhetoric - acknowledge the existing heritage to understand what new architectural expression can contribute.

These four principles ensure not only the *Requalification* of the site, but the regeneration of a deserted landscape. The potential



3.3

Figure - 3.5 - This photograph is from Phil D's photographic collection of derelict industrial buildings [Source: www.flickr.com] , p. 44

of the site must be uncovered so that these sites do not become the garbage of tomorrow.

"True recycling changes perception and restructures judgement"

Irene Curulli (2007, p.17)

Donlyn Lyndon writes that if these spaces and memories contained within them can be traced and projected with clarity, they can become a source of both change and continuity.

The above theoretical approaches by Irene Curulli and Donlyn Lyndon are to establish the angle of approach for the design of the abattoir on the Eerste Fabrieke precinct site.

The site holds many remnants of its previous occupation and these are to give form and structure to the proposed new development and eventually the final product within this development.

By adhering to the historical development of the site (refer to chapter 5) the development will attempt to reinforce and revive the historical importance of the site. This will create a continuity and change, as both Curulli and Lyndon argue, that are necessary by establishing a new trend of production built upon the old.

The existing built fabric is to be revived where possible by rebuilding and repairing and re-establishing a sense of historical place. Memory of the site as the first industrial venture in the old Transvaal is to be rejuvenated as the programming chosen is rooted within the history of the site. Production is chosen as the driver for the development, and meat production for the dissertation, which is rooted in the present. Therefore a balance between the old and new industry is achieved.

By applying a reqaulitative design approach, the site can be regenerated without losing important lessons of the past. Avoiding the mistakes of the past through acknowledgement, the present resolution can avoid the same outcome. Where industrial architecture according to Ajanta Sen (2004, p. 8) has to recede and metamorphose, a requalatative or regenerative approach can achieve a progressive nature and not leave future generations with contaminated sites, but rather leave them with a sense of history, place and a functional space of economic value.

Figure - 3.6 - Photograph of existing underground distilling bunkers on site (By Author).

3.5

ADDRESSING THE ENVIRONMENT

Fig - 3.7
Photograph by author. Building and Nature co-exist.

BEYOND SUSTAINABILITY - REGENARATIVE ARCHITECTURE

The first hurdle in addressing our dire environmental concerns is the transformation of the built environment from a degenerative typology using obsolete construction technologies to a regenerative architecture. Regenerative architecture is defined as:

"the practice of engaging the natural world as the medium for, and generator of the architecture. It responds to and utilizes the living and natural systems that exist on a site that become the "building blocks" of the architecture."

(Littman, 2009, p. 3)

The concept of regenerative architecture has two main focusses. Firstly, it focuses on the conservation of the natural environment and secondly it focuses on performance based architecture. The latter is defined as a reduction in the impact of architecture on the environment

(Littman, 2009, p. 3).

The paradigm of sustainability merely addresses the first focus of regenerative architecture and employs patchwork like solutions to the problems. Reducing carbon emissions by applying superficial systems to the surface of the building does not solve the problem but merely postpones the reality of the situation. Why would we only *sustain* our environment for ourselves and not have a productive relationship with it, characterised by a regenerative symbiosis?

"The challenge today is no longer just to create sustainable cities but truly regenerative cities: to assure that they do not just become resource-efficient and low carbon emitting, but that they positively enhance rather than undermine the ecosystem services they receive from beyond their boundaries."

(Girardet, 2010, p. 1)

Regenerative design aims to surpass the objectives of sustainability and start addressing further reaching avenues, which not only include the natural environment but also the social aspects of the human ecosystem. The architect William McDonough devised a set of principles to guide the designer through a process of regenerative design. These principles were created for the World Exposition in Hannover, Germany in 2002 and are called the Hannover Principles. They are as listed below, from his book *Cradle to Cradle: Remaking the Way We Make Things 2002:*

THE HANNOVER PRINCIPLES

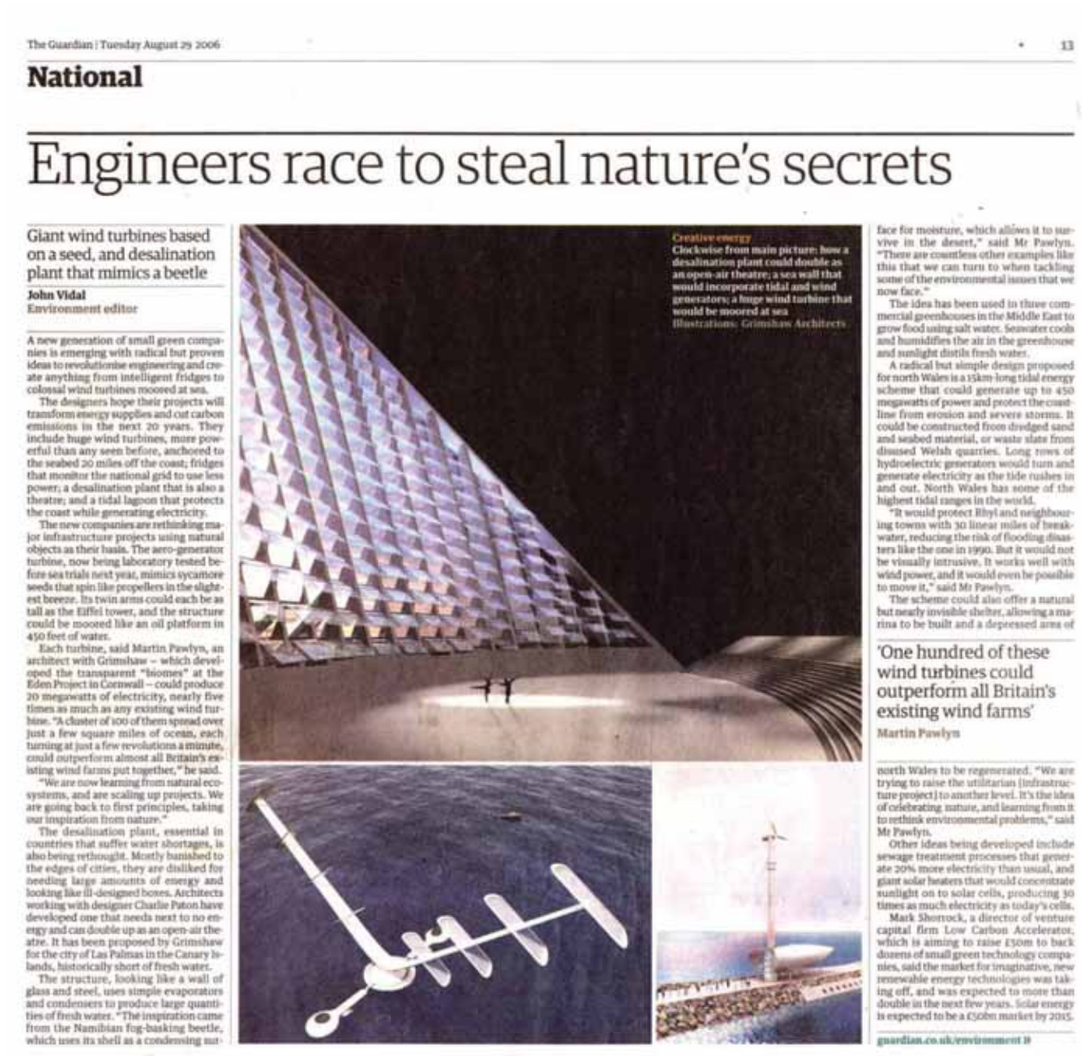
1. **Insist on rights of humanity and nature to co-exist** in a healthy, supportive, diverse and Sustainable condition.

2. **Recognize interdependence**. The elements of human design interact with and depend upon the natural world, with broad and diverse implications at every scale. Expand design considerations to recognising even distant effects.

3. **Respect relationships between spirit and matter**. Consider all aspects of human settlement including community, dwelling, industry and trade in terms of existing and evolving connections between spiritual and material consciousness.

4. **Accept responsibility for the consequences of design** decisions upon human well-being, the viability *of* natural systems and their right to co-exist.

5. **Create safe objects of long-term value**. Do not burden future generations with requirements for maintenance or vigilant administration of potential danger due to the careless creation



The Guardian | Tuesday August 29 2006 • 13

National

Engineers race to steal nature's secrets

Giant wind turbines based on a seed, and desalination plant that mimics a beetle

John Vidal
Environment editor

A new generation of small green companies is emerging with radical but proven ideas to revolutionise engineering and create anything from intelligent fridges to colossal wind turbines moored at sea.

The designers hope their projects will transform energy supplies and cut carbon emissions in the next 20 years. They include huge wind turbines, more powerful than any seen before, anchored to the seabed 20 miles off the coast; fridges that monitor the national grid to use less power; a desalination plant that is also a theatre; and a tidal lagoon that protects the coast while generating electricity.

The new companies are rethinking major infrastructure projects using natural objects as their basis. The aero-generator turbine, now being laboratory tested before sea trials next year, mimics sycamore seeds that spin like propellers in the slightest breeze. Its twin arms could each be as tall as the Eiffel tower, and the structure could be moored like an oil platform in 450 feet of water.

Each turbine, said Martin Pawlyn, an architect with Grimshaw – which developed the transparent "biomes" at the Eden Project in Cornwall – could produce 20 megawatts of electricity, nearly five times as much as any existing wind turbine. "A cluster of 100 of them spread over just a few square miles of ocean, each turning at just a few revolutions a minute, could outperform almost all Britain's existing wind farms put together," he said.

"We are now learning from natural ecosystems, and are scaling up projects. We are going back to first principles, taking our inspiration from nature."

The desalination plant, essential in countries that suffer water shortages, is also being rethought. Mostly banished to the edges of cities, they are disliked for needing large amounts of energy and looking like ill-designed boxes. Architects working with designer Charlie Paton have developed one that needs next to no energy and can double up as an open-air theatre. It has been proposed by Grimshaw for the city of Las Palmas in the Canary Islands, historically short of fresh water.

The structure, looking like a wall of glass and steel, uses simple evaporators and condensers to produce large quantities of fresh water. "The inspiration came from the Namibian fog-basking beetle, which uses its shell as a condensing surface for moisture, which allows it to survive in the desert," said Mr Pawlyn. "There are countless other examples like this that we can turn to when tackling some of the environmental issues that we now face."

Creative energy
Clockwise from main picture: how a desalination plant could double as an open-air theatre; a sea wall that would incorporate tidal and wind generators; a huge wind turbine that would be moored at sea
Illustrations: Grimshaw Architects

The idea has been used in three commercial greenhouses in the Middle East to grow food using salt water. Seawater cools and humidifies the air in the greenhouse and sunlight distils fresh water.

A radical but simple design proposed for north Wales is a 15km-long tidal energy scheme that could generate up to 450 megawatts of power and protect the coastline from erosion and severe storms. It could be constructed from dredged sand and seabed material, or waste slate from disused Welsh quarries. Long rows of hydroelectric generators would turn and generate electricity as the tide rushes in and out. North Wales has some of the highest tidal ranges in the world.

"It would protect Rhyl and neighbouring towns with 30 linear miles of breakwater, reducing the risk of flooding disasters like the one in 1990. But it would not be visually intrusive. It works well with wind power, and it would even be possible to move it," said Mr Pawlyn.

The scheme could also offer a natural but nearly invisible shelter, allowing a marina to be built and a depressed area of north Wales to be regenerated. "We are trying to raise the utilitarian [infrastructure project] to another level. It's the idea of celebrating nature, and learning from it to rethink environmental problems," said Mr Pawlyn.

'One hundred of these wind turbines could outperform all Britain's existing wind farms'
Martin Pawlyn

Other ideas being developed include sewage treatment processes that generate 20% more electricity than usual, and giant solar heaters that would concentrate sunlight on to solar cells, producing 30 times as much electricity as today's cells.

Mark Shorrock, a director of venture capital firm Low Carbon Accelerator, which is aiming to raise £50m to back dozens of small green technology companies, said the market for imaginative, new renewable energy technologies was taking off, and was expected to more than double in the next few years. Solar energy is expected to be a £50bn market by 2015.

guardian.co.uk/environment

Figure - 3.8 - Article from the Guardian August 29, 2006

of products, processes or standards.

6. **Eliminate the concept of waste.** Evaluate and optimize the full life-cycle of products and processes, to approach the state of natural systems, in which there is no waste.

7. **Rely on natural energy flows**. Human designs should, like the living world, derive their creative forces from perpetual solar income. Incorporate this energy efficiently and safely for responsible use.

8. **Understand the limitations of design**. No human creation lasts forever and design does not solve all problems. Those who create and plan should practice humility in the face of nature. Treat nature as a model and mentor, not as an inconvenience to be evaded or controlled.

The principles listed cover the core and all the basis of the concept of regenerative design. The Hannover principles consider all aspects of human interaction with the built environment, nature and the interdependence of the human settlement.

The Role of Regenerative Architecture in Industrial Development

Regenerative architecture strives to reconnect architecture with its natural landscape and its ecological context to create a relationship not just including the natural but also the social aspects of the building's physical context (Girardet, 2010, p. 9). Industrial architecture has to transform to this vision and adhere to the principles set out by McDonough for it to be incorporated into areas of dense human activity and commerce.

When applied to the industrial typology, the eight principles by McDonough not only address the typologies environmental concerns but also start to outline a new interface between the public and industry. The development of this interface is of utmost importance to unlock the spatial potential of areas of production. For these areas to be wholly integrated into urban and even sub urban areas all of the principles need to be satisfied. Only then can the industrial typology survive constructively within the everyday processes of human activity.

The Role of Regenerative Architecture in South African Cities

"Solutions Grow From Place. Ecological design begins with the intimate knowledge of a particular place. Therefore, it is small scale and direct, responsive to both local conditions and local people. If we are sensitive to the nuances of place, we can inhabit without destroying." (Van Der Ryn, S., & Cowan, S. 1996. p. 39)

Regenerative architecture, just like the TIR (Third Industrial Revolution) takes on new meaning in a third world developing country context like that of South Africa. When looking at the triple bottom line principle of sustainability namely: the economic, environmental and social spheres, the social aspect of sustainability and regenerative design becomes the most weighted in our context. For the economic and environmental spheres to be satisfied in a third world country, the social ills need to be addressed first.

Industry and production supply the majority of our population with income (Anglogold, 2000) and requires a transformation to strengthen its future position as provider for millions of people in South Africa. For industry to secure a productive place in the future economy, the architecture it houses should start addressing not only the environmental needs but also the social needs of its location.

Therefore the role of regenerative architecture in the context of South Africa has to start with the social concerns whilst concurrently addressing the environmental issues, and by successfully doing this the economical sphere shall be satisfied. By applying what Cowan and Van Der Ryn say and looking at a responsive approach to both local conditions and local people, a regenerative and reciprocal relationship can be constructed between the public and the architecture of production.

Figure - 3.9 - Regenarative design - A balance between natural and man made ecosystems

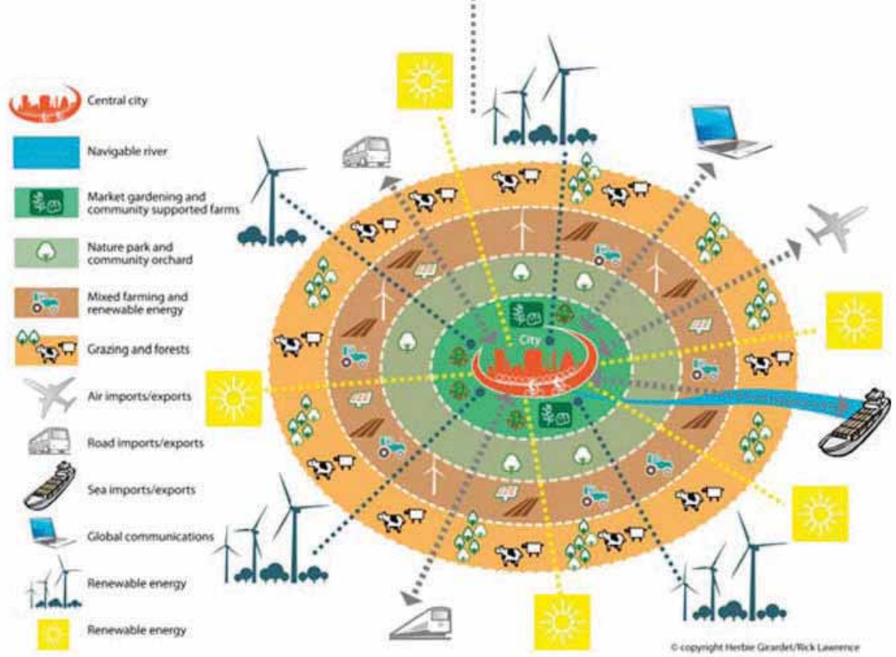


Figure - 3.10 - "The Ecopolis" - Diagram of how regenerative cities work.

THEORETICAL SYNTHESIS

A Required Change for a Static Typology
The Third Industrial Revolution
Heritage: Recycling History and Memory
Beyond Sustainability: Regenerative Architecture

The theory discussed under the four listed headings above follows an argumentative structure of:

1. (3.1)Identifying a problem with the industrial typology.
2. (3.2)Addressing the identified problems with current initiatives.
3. (3.3)Embracing the historical value of deserted industrial sites.
4. (3.4)Making the industrial typology suitable for future generations.

SYNTHESIS

The dissertation argues that static mono functional industrial architecture has led to numerous abandoned industrial sites scattered around the urban periphery. The architecture inhabiting abandoned industrial sites or industrial wastelands, as referred to by Irene Curulli, prohibited abandoned sites from evolving with its ever changing context, be it physical or economical.

A separation between industrial architecture, the landscape, urban surface and productive urban network is identified as another cause for the deserted state of the industrial wasteland. These sites contain large amounts of history memory and embodied energy that can be unlocked.

The dissertation continues to identify the Third Industrial Revolution (TIR) as the current paradigm shift concerning industry, industrial architecture and its future. The TIR requires a new typology to refrain from repeating the mistakes of the past that lead to the vast amount of abandoned industrial sites.

The new industries surrounding the TIR is found not to be applicable to the South African context just yet, due to the advanced technology and infrastructure required.

By readdressing the current industry and industrial architecture within a sustainable framework, the current industry can provide the infrastructure and foothold for the TIR in the near future.

It is argued that the current method of wiping these sites clean of their heritage and memory is detracting from the city, as these sites support the city's identity. The regeneration of these sites are becoming more important as space in urban centres become less. A series of design principles formulated by Irene Curulli regarding "*requalification design*" is discussed and identified as an applicable tool when working with abandoned industrial sites.

The dissertation argues that the current sustainable paradigm is not enough, as it is preserving an already damaged future and that a further paradigm shift is required to regenerate the environment. The theory of regenerative architecture is agreed upon as the possible solution. The Hannover Principles as formulated by William McDonough are identified as another design tool.

Regenerative architectural theory is discussed in the context of industrial development in South African cities. By applying the Hannover principles to the architecture of industry, a new interface between the public and industry can start to develop, reconnecting the architecture to the productive urban network. Within the South African context, regenerative architecture requires a shift in priorities. It is argued that the social spheres need to be satisfied before the environmental issues can be addressed. It is identified that by understanding and responding to the local conditions and community, a reciprocal relationship between the public and architecture of production can be achieved.

TOWARDS A REGENERATIVE FUTURE FOR THE ARCHITECTURE OF INDUSTRY.

To create a positive permanence within the architecture of industry, it has been identified that not only the future aims and goals require attention but past and present concerns require consideration. For the architecture of industry to be pulled from its obscure peripheral locations and placed within the public realm, it requires a new methodological approach to the creation of a productive interface.

The interface is to be defined by not only how it connects the building to its physical surroundings, but also how it connects its inherent processes, as there are a multitude of natural and man made energy flows into which it can tap. These energy flows include harnessing the environment to assist the sustainable functioning of the building and also understanding the needs of the community into which it is placed. By allowing the architecture to connect with the community, the building gains functional longevity and can provide economic venture by exploiting the concept of waste. The typology can no longer act as containers, housing abrasive processes and requires reconnecting with all spheres of its context.

The heritage value of abandoned sites requires extreme scrutiny and cognisanse to avoid perpetuating the ills of the past. The value of heritage and memory associated with place, requires architectural preservation because it adds to the identity of the region.

The dissertation aims to explore the creation of such an interface between the public and the macabre processes housed in a an abattoir. The interface is to be driven by the concept of waste as it aligns itself with regenerative principles and also South African ritualistic processes. By relocating the abattoir into the public realm, it will create a public discourse with people acknowledging what is happening, and no longer being able to keep the reality of the abattoir at arms length.

The intention of this discourse is not to promote vegetarianism but for people to take cognisance of the process, the parts thereof, and possibly stop the over consumption red meat.